



Mary Goldade

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To: Floyd Nichols/EPR/R8/USEPA/US@EPA
cc: miller.aubrey@epa.gov
Subject: Additional Comments on SLC2 site SAP

Floyd,

I was able to scan your document this morning. In addition to the general comments I made yesterday, I noted the following:

1) Section 1.1, Project objectives. #1 (and anywhere else in the SAP). The objective is defined as "Determine any potential sources of Libby Amphibole (tremolite/actinolite) asbestos contamination..." Libby amphibole is a solid solution series that includes not only actinolite, tremolite, winchite...but several other minerals. I would indicate this distinction and then refer to the material being investigated as the solid solution: Libby Amphibole asbestos (LA). I would never refer to only the currently regulated compounds: tremolite and actinolite as the fraction of these specific materials in LA is low, even though LA has shown to be a health hazard.

2) Section 2.4. Delete the last sentence of the 1st paragraph.

3) Section 3.6. This section proposes possible reasons for analytical measurement error. The bullets appear to relate to PLM because most are not true for other optical methods such as TEM. Also, #1 may not be accurate since we have ground the sample to best homogenize the sample. I suggest removing these bullets. The paragraph after the bullets should read: "...LA asbestos concentrations 1 percent or greater..." The 3rd paragraph suggests tolerable decision errors, which I do not agree with. These are often better described as the α for Type I errors and β for Type II errors. As a starting point, for Superfund cleanups apply $\alpha \leq 5\%$ and $\beta \leq 20\%$, unless additional information is available or the OSC has reasons as a risk manager to prescribe other limits. These may be targets to consider in place of those listed in the document now. I recommend that the 4th paragraph also include the actual (numeric) action limit that is reference in this section. Further, decision point criteria do not preclude the OSC's ability to confirm or reanalyze a sample by the same or alternative methods. This rationale should not be incorporated into the tolerance for limits on decision errors; it should strictly be based on the risk manager's limit for generating false positives or false negatives & what the use of the data will be....According to the objectives, it does not appear that you will be making decisions on the soil data, just identifying the nature and extent of contamination. Is this true? If so, eliminate the discussion (as it relates to risk to soils) completely and focus on tolerances for air samples. If you are making decisions on soil data, are they based on: whether to cleanup soil that is immediately hazardous to health? Let's talk at 1pm today.

4) PLM analysis cited is 9002. After thinking about this overnight, I think it's best since the soils are not from Libby, (until we know more) it's tenuous to use Libby reference materials to quantify concentrations for sites other than Libby.

5) Section 4.3.3, (SubSection 2.2). Revise the 3rd, 4th and 5th sentences to read: "Composite samples will be composed of nearly equal portions of soil from five randomly discrete locations within a horizontal radius of approximately 25 feet giving a total sample mass of about 500 g. The full (approx. 500 g sample) field composite sample will be sent to the CDM laboratory in Denver." This section should cite the soil sample preparation SOP.

6) Section 4.3.3 (SubSection 5.2.3). There is repetitive/incongruous information in this paragraph. Delete this paragraph and incorporate details not already discussed into SubSection 2.2.

7) Section 4.3.6. Field "dups". Provide homogenization techniques in this section, but be sure to indicate that, though the stakeholder will be receiving a portion, these are not true splits because homogenization will not be complete. I cannot tell from the text where decontamination waters will be collected and analyzed. It's sort of referred to, but not details about frequency or method of analysis or data evaluation is provided. Since you are using disposable equipment, it's not required....and in that case I'd remove reference to equipment blanks to avoid confusion. (Ditto for the VAI section as applicable)

8) Add a section on QC for the air samples. Field blanks, lot blanks are required per the sampling method. Note that the sampling method for air samples must also be cited somewhere in the document.

9) The soil prep process requires sieving. If there is a solid fraction $> 1/4"$, that fraction must be analyzed. Indicate this in the SAP and reference the SOP (you've already got it in the attachments, just have Anni Autio include copies of all the most recent versions for you)

10) For field duplicates (both soil and bulk VAI) these duplicates should not be "splits" samples separated from bag after partial "homogenization". They should show the variability across discrete samples

collected....that is separate samples collected from nearby locations (co-located).

11) Section 4.5. Refer to the libby dust SAP and attachments for sampling and data evaluation recommendations.

12) There are a couple of places where the ASTM method D5755-95 is cited as D5755-97. Please revise.

13) Section 4.6.6. A discussion of lot blanks should be included in this section (frequency, definition, evaluation criteria and corrective action). Provide the frequency, evaluation criteria and corrective action for field blanks.

14) Section 5. Text previously indicated that waste product samples would not be prepared at the CDM prep lab (which seems accurate). This section states otherwise; please revise. This section states that removal decisions will be based on the fine fraction. I strongly disagree with this statement; we may have large chunks in the coarse fraction. Let's discuss this.

15) Section 6.1. Many of the calibration requirements for PCBs are not appropriate for asbestos. The language here meshes these two distinctly different analyses together and would be better treated as 2 subsections that outline requirements for each separately. Note that NIOSH is not an agency whose methodology we are citing in the appendices.

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SLC2 December 2003 Sampling - Revision 2

Date	Address	Sample Number	Sample Type	Sample Analysis	Sample Location	Volume (L or cm2)	Sensitivity Airs/cc/Dusts/cm2	Sample Result	Asbestos Fiber Count	Concentration Air(s/cc)/Dust(s/cm2)
2-Dec-03	Artistic Printing	SLC2-150	Personal Air	TEM (ISO 10312)	Steve Coleman	1041 L	3.36e-03	Non Detect	0	< Detection Limit
2-Dec-03	Artistic Printing	SLC2-151	Personal Air	TEM (ISO 10312)	Richard Benson	1115 L	3.14e-03	Non Detect	0	<DL
2-Dec-03	Artistic Printing	SLC2-152	Stationary Air	TEM (ISO 10312)	Binding Room North	4577 L	7.65e-04	Non Detect	0	<DL
2-Dec-03	Artistic Printing	SLC2-153	Stationary Air	TEM (ISO 10312)	Break Area; Binding Room South	4534 L	-	Overloaded	-	<DL
2-Dec-03	Artistic Printing	SLC2-154	Stationary Air	TEM (ISO 10312)	Press Room South	4560 L	-	Overloaded	-	<DL
2-Dec-03	Artistic Printing	SLC2-155	Stationary Air	TEM (ISO 10312)	Press Room North	4550 L	7.69e-04	Non Detect	0	<DL
2-Dec-03	Artistic Printing	SLC2-157	Stationary Air	TEM (ISO 10312)	Administrative Office	1384 L	2.53e-03	LA	1	0.00253
2-Dec-03	Artistic Printing	SLC2-158	Dust	TEM (ISO 10312)	Administrative Office	300 cm2	1.69e+02	C	1	169
2-Dec-03	Artistic Printing	SLC2-159	Dust	TEM (ISO 10312)	Pre-Press Room	300 cm2	1.13e+02	Non Detect	0	<DL
2-Dec-03	Artistic Printing	SLC2-160	Dust	TEM (ISO 10312)	Dumpster Room	300 cm2	1.22e+02	LA & C	1 LA; 1 C	LA: 122; C: 122
2-Dec-03	Artistic Printing	SLC2-161	Dust	TEM (ISO 10312)	New Equipment	300 cm2	3.87e+02	Non Detect	0	<DL
2-Dec-03	Artistic Printing	SLC2-162	Dust	TEM (ISO 10312)	Old Equipment	300 cm2	1.52e+02	LA & C	1 LA; 1 C	LA: 152; C: 152
2-Dec-03	Artistic Printing	SLC2-163	Dust	TEM (ISO 10312)	New Equipment	300 cm2	3.53e+02	LA	1	353
2-Dec-03	Artistic Printing	SLC2-167	Lot Blank	TEM (ISO 10312)	-	-	-	Non Detect	0	<DL
2-Dec-03	Artistic Printing	SLC2-168	Field Blank	TEM (ISO 10312)	-	-	-	Non Detect	0	<DL
2-Dec-03	Artistic Printing	SLC2-169	Dust	TEM (ISO 10312)	Blank	-	-	Non Detect	0	<DL
2-Dec-03	La Quinta	SLC2-164	Dust	TEM (ISO 10312)	Front Room	300 cm2	3.53e+02	LA & C	1 LA; 2 C	LA: 353; C: 706
2-Dec-03	La Quinta	SLC2-165	Dust	TEM (ISO 10312)	Large Room w/ Garage Doors	300 cm2	3.69e+02	Non Detect	0	<DL
2-Dec-03	La Quinta	SLC2-166	Dust	TEM (ISO 10312)	Office Area	300 cm2	1.16e+02	LA & C	1 LA; 15 C	LA: 116; C: 17,400
3-Dec-03	UT Paperbox	SLC2-170	Personal Air	TEM (ISO 10312)	Eric Farley	787 L	4.45e-03	Non Detect	0	<DL
3-Dec-03	UT Paperbox	SLC2-171	Stationary Air	TEM (ISO 10312)	Roland 700	5130 L	6.82e-04	Non Detect	0	<DL
3-Dec-03	UT Paperbox	SLC2-172	Stationary Air	TEM (ISO 10312)	Roland 600	5170 L	6.77e-04	Non Detect	0	<DL
3-Dec-03	UT Paperbox	SLC2-173	Stationary Air	TEM (ISO 10312)	Pre-Press Room	4940 L	7.09e-04	Non Detect	0	<DL
3-Dec-03	UT Paperbox	SLC2-174	Stationary Air	TEM (ISO 10312)	Sheeter	4990 L	7.01e-04	Non Detect	0	<DL
3-Dec-03	UT Paperbox	SLC2-175	Stationary Air	TEM (ISO 10312)	Loading Dock	4980 L	7.03e-04	Non Detect	0	<DL
3-Dec-03	UT Paperbox	SLC2-176	Stationary Air	TEM (ISO 10312)	Copy Area of Office	1372 L	2.83e-03	Non Detect	0	<DL
3-Dec-03	UT Paperbox	SLC2-177	Blank	TEM (ISO 10312)	-	-	-	Non Detect	0	<DL
3-Dec-03	UT Paperbox	SLC2-178	Personal Air	TEM (ISO 10312)	Alfonso (Janitorial Staff Person)	888 L	3.94e-03	Non Detect	0	<DL
3-Dec-03	UT Paperbox	SLC2-179	Dust	TEM (ISO 10312)	East End of Building	300 cm2	9.75e+02	Non Detect	0	<DL
3-Dec-03	UT Paperbox	SLC2-180	Dust	TEM (ISO 10312)	Center of Building	300 cm2	3.12e+02	Non Detect	0	<DL
3-Dec-03	UT Paperbox	SLC2-181	Dust	TEM (ISO 10312)	West End of Building near sheeter	100 cm2	2.92e+03	C	1	2,920
3-Dec-03	UT Paperbox	SLC2-182	Dust	TEM (ISO 10312)	Break Room	300 cm2	3.25e+02	Non Detect	0	<DL
3-Dec-03	UT Paperbox	SLC2-183	Dust	TEM (ISO 10312)	Upstairs near maintenance office	300 cm2	9.75e+02	Non Detect	0	<DL
3-Dec-03	UT Paperbox	SLC2-184	Dust	TEM (ISO 10312)	Admin Offices	300 cm2	3.25e+02	Non Detect	0	<DL
3-Dec-03	UT Paperbox	SLC2-185	Lot Blank	TEM (ISO 10312)	-	-	-	Non Detect	0	<DL
3-Dec-03	UT Paperbox	SLC2-186	Field Blank	TEM (ISO 10312)	-	-	-	Non Detect	0	<D